G00311133

Treat Mobile Apps as Products, Rather Than Projects, to Maximize Their Value

Published: 22 September 2016

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Enterprises often have difficulty realizing the value and benefits they expect from their mobile apps. To identify and maximize their value, application development leaders should apply product management principles to optimize applications' ROI, increase their adoption and reduce their abandonment.

Key Challenges

■ Business-to-employee mobile app development initiatives often fail, because they don't engage the stakeholders throughout their life cycles.

■ Many organizations lack product management experience and, therefore, have little understanding of the ongoing benefits of applying it to mobile AD.

■ Lines of business are often confused as to the success metrics to use for B2E applications, as well as how to meet them.

Recommendations

■ Implement a product management approach to mobile app strategies and application life cycle management.

■ Adopt a product management mindset to achieve or exceed a mobile app's intended value.

■ Focus on increasing adoption, limiting abandonment and using product management principles to identify and maximize value and ROI.

Strategic Planning Assumption

By 2022, 80% of enterprises successfully building, deploying and maintaining mobile apps will have adopted product management principles to manage the mobile application life cycles of their portfolios.

Introduction

Most organizations approach the development of business to employee (B2E) mobile apps in the same manner they've always used to deliver desktop-based enterprise applications. This project-based approach has a delivery date for the handoff of the application to the business, and future bugs and enhancements are addressed as change requests by separate support teams. This method works poorly when applied to mobile apps. In particular, it makes it difficult to identify and prioritize the high-value or reusable features that should be built first.

For mobile application development (AD) leaders to overcome these issues and successfully launch and scale mobile app initiatives in their organizations, they need to shift their mindset to treating mobile apps as products, rather than projects. Projects are things you consider finished once they've been delivered, whereas mobile apps are developed, continuously improved and deliberately promoted.

Of these activities, the least familiar to IT groups is promotion, which is normally associated with consumer applications. However, the only way to ensure wide adoption of an enterprise application is to promote it heavily within the organization. This a key factor in the frequent failure of applications to meet their targets. It is nothing to do with AD; users are simply unaware of its existence.

For an application to meet its success criteria, mobile AD leaders must blend product management, agile development, stakeholder involvement and user feedback to maximize adoption. This research explains how to adopt the key elements of each of these approaches.

Analysis

Implement a Product Management Approach to Mobile AD Strategies and Application Life Cycle Management

Product management principles should be applied to mobile AD through a Mobile Center of Excellence (MCOE). An MCOE enables enterprises to adapt to rapid changes in mobile technologies and user expectations by providing a focal point to bootstrap the mobile governance, development and deployment processes. The MCOE should include curious, creative and adaptable individuals who can help enterprises adapt to rapid changes in mobile technologies and user expectations.

Typical technical members of the MCOE include specialists in the areas of identity/privacy, security, operations, integration, analytics, user experience and development. Nontechnical roles may include line of business (LOB) and end-user representatives, process experts, human resources, marketing and legal. (see "How to Build a High-Performance Mobile Center of Excellence" for more detail on building such a team).

One of the key shortcomings of a waterfall-project-based approach is a legacy mindset. Once a software application project has been officially released, it's handed off to a completely separate "business as usual" team, which maintains and logs change requests for the application. The risk in

throwing a mobile app "over the fence" in this manner is that it removes the ability to iterate and improve the app, which mobile DevOps teams monitor as part of the overall mobile app life cycle.

Business as usual risks negatively affecting application adoption and user retention.

The application also risks becoming detached from the user experience design and development teams. This will negatively affect application adoption and user retention. The application needs to be economical, targeted and business-function-specific. Get rid of any functions that users aren't accessing, and replace them with things they're more likely to use. This can only be achieved with an iterative process, using product management principles in collaboration with the triad of product owner, product manager and business stakeholders (see Figure 1).

Figure 1. Using Product Management Principles for Mobile App Life Cycle Management
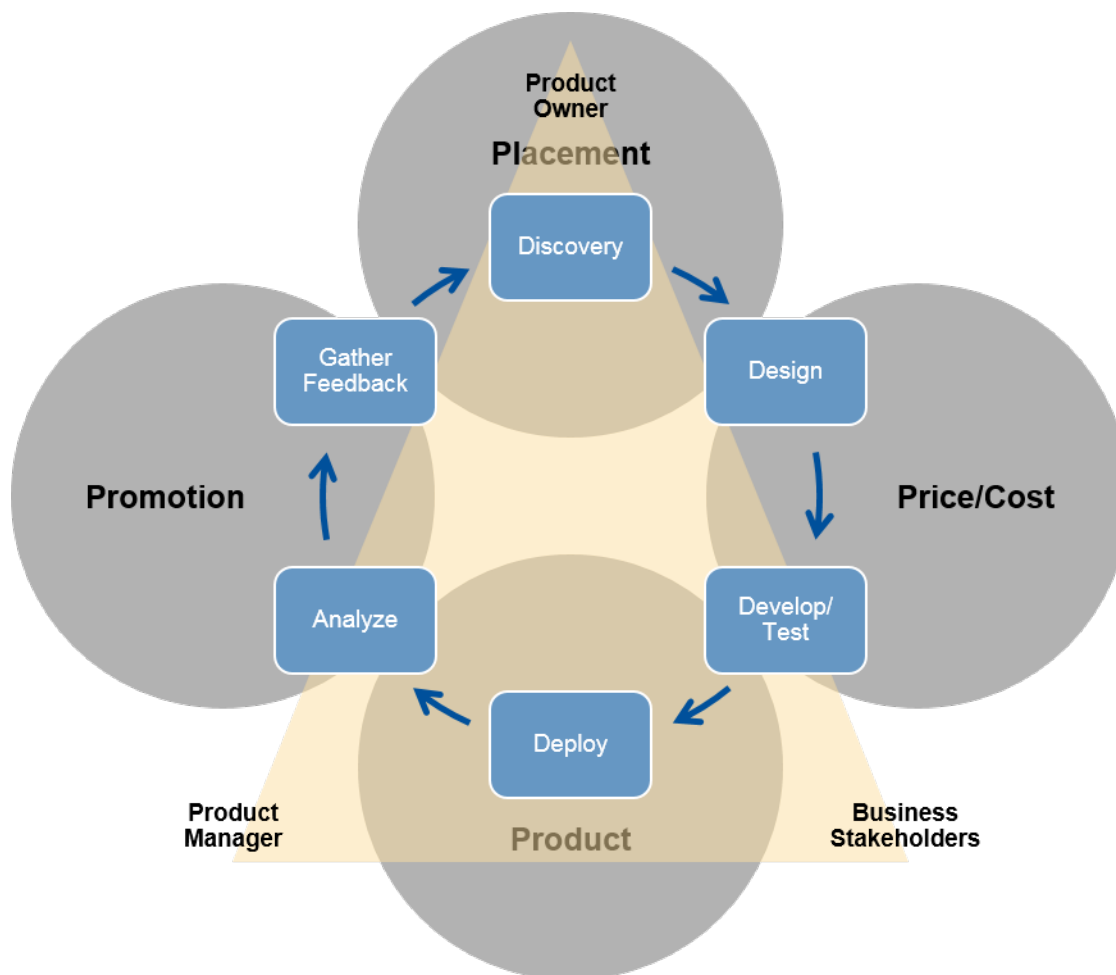
Source: Gartner (September 2016)

The number of roles and experts may vary, based on the size and complexity of the application. Although applications of all sizes should subscribe to the methodologies and principles discussed in this research, all of the specific technical and nontechnical subject matter experts need not be involved in every application.

A product management approach to mobile AD will ensure that the critical iterative process of applying product management principles is applied across the mobile app life cycle, and mobile AD teams don't wash their hands of an application once it has been deployed. Instead, AD becomes the beginning of the mobile DevOps process, which is integral to the overall mobile app life cycle. You will want to instrument your applications and look at how those applications are being used:

- What screens are people going to?

- What functions are they accessing?

- How long are they using it?

The reason you want to know all this is not just because you want to see if you got it right. It's also about identifying which parts of your application aren't being used.

A product management approach ensures there is a governing cross-functional oversight function in the organization. This approach is in place from the beginning to the end of an application's life cycle, becoming a driving force behind its continuous improvement. This method will ensure that, once released, an app has a higher probability of being adopted and returning users. Empowered product managers will coordinate with product owners of the various applications deployed or under development to become keepers of product/feature roadmaps and the central, internal product and feature communicators for the enterprise. Collaboration is a high-priority prerogative for successfully implementing a product management mindset, and the dialogue created with the core team should lead to a transparent development prioritization, as well as clarification of application features (see "Successful Mobile App Projects Need Empowered and Agile Product Owners").

Adopt a Product Management Mindset

Enterprise development teams have turned increasingly to agile approaches when developing mobile apps, and they are comfortable with the role of product owner. However, treating mobile apps as products is more than just applying agile development methodologies. It should include best practices for product management in general. In defining product management, Gartner refers to the "4Ps" framework (see "Master Pervasive Integration With Product Management Thinking"), for which the definitions have been modified to focus on enterprise mobile app products:

- **Product —** Who is the target audience and/or user persona of the mobile app? What LOB is this for? What is the definition of the minimum viable product (MVP)? What is the roadmap/vision of the mobile app product.

- **Price —** How will mobile AD costs be recovered? What is the value of the application? How will that value be measured?

- **Placement —** Where will the mobile app product be available to users? Will it be available from a public or enterprise application store? Will the application be managed through enterprise mobility management (EMM) or stand-alone mobile application management (MAM)? How will the application be updated?

- **Promotion —** How will users find out about the application? How will it be internally marketed and advertised? What is the communication plan? What tools that are unique to mobile could be leveraged for promotion (e.g., in-application messaging, push notifications, SMS and application store promotions)?

Ultimately, the overall ownership of mobile app products belongs to the product owner, who is responsible for all strategic and tactical product management aspects. This includes driving the vision, features and prioritization, as well as managing the services to be delivered in the mobile app product, and working with the development team to communicate and manage the product backlogs. However, a new role must be introduced to the team — the product manager, who is responsible for managing the product roadmap, understanding the market, and communicating and marketing the product.

The role of the product owner may be overwhelming, and, depending on the size of the products and the organization, a product manager might need be appointed to take on responsibilities that are more market-strategic and outward-facing. This product manager will be responsible for product marketing and working directly with the product owner of an application, which will ensure that the strategic product management principles of the 4Ps are front of mind throughout the mobile product life cycle.

Therefore, clear communications should ensure that there is alignment in the delivery expectations and schedules of the mobile app product through every phase. Focus should be on a continuous delivery model, with clear metrics and action-oriented analytics. Based on the analytics and metrics, the product manager and owner will continually work to enhance the value of the mobile app product by prioritizing the users' stories, features, enhancements and changes, which will go into the mobile app product.

The product owner has the ongoing authority and responsibility to drive the mobile app product throughout its entire product life cycle and will need to work directly with the development teams, product manager and business stakeholders. From ideation to retirement, the product owner must make decisions and implement plans to boost the ROI of the mobile app product. Increasing the ROI starts with defining and prioritizing the initial features that will make up the MVP. The definition of the MVP must be completed in collaboration with the product owners and business stakeholders, and it should focus on the highest-priority items that return the highest value.

From ideation to retirement, the product owner must make decisions and implement plans that boost the ROI of the mobile app product.

Once the MVP has been defined, the product owners must develop and communicate clear and measurable metrics for evaluating success, initially and ongoing. The product owner will work on implementing analytics into the mobile app product to ensure that the proper events, transactions, performance, and any other factors are being measured and reported.

The product manager, along with the product owner, will use analytics, user feedback, and any additional business requirements or changes to continually develop the product roadmap and life cycle. This will include adding appropriate items to the backlog for additional features and enhancements. In collaboration with the product owner, the product manager must continually work to assess and achieve the value of the mobile app product.

Finally, no matter how great the user stories, features and functions are, a mobile app product will not achieve or exceed its intended value without application adoption. The product manager must work with the product owner, MCOE, and LOB to ensure that a clear communications and marketing plan is developed and implemented. The ease of obtaining and using the mobile app product by its intended audience must be a top priority.

Identify and Maximize Application Value With Product Management Principles

Organizations can assess the value of each application based on the frequency and value of the transactions that it executes. The product of these factors establishes a clear value for a given application, enabling rational selection among the applications competing for limited development resources. Once the value of an application is assessed, the application is prioritized by the MCOE, working in collaboration with the product owner, product manager and business stakeholders. Once assessed and prioritized, the mobile app life cycle of the product begins (see "A Decision Framework for Mobile App Prioritization"). To maximize, achieve or even exceed the value that was assessed, the product manager needs to focus on two areas:

- Increasing application adoption

- Limiting application abandonment

The outward-facing role of the product manager is responsible for the 4Ps mentioned earlier. Those four areas must be a part of each phase of the mobile app product life cycle to ensure that the application product is being adopted. No matter how great an application is, if users don't know about it (promotion), they can't get to it easily (placement), its metrics and value are not clearly defined and recoverable (price), and the application doesn't serve the right goals (product), then the effort and cost expended on the application are being wasted. Application adoption is the single most important factor in the success of any mobile app product.

Initial application adoption is one thing; continued use is another. This is where continuous improvement and continuous delivery come in. Starting with an MVP is essential; however, using that MVP to gather user feedback and action-oriented analytics is even more important. By harnessing that feedback, the product owners, working with the product manager, will determine what features and enhancements to add to the product backlog, while communicating them to the customer base. All of this is aimed at retaining the current application users, while increasing the base.

The product owner, working with direct input from the product manager, needs to ensure that the mobile analytics that are relevant to their business goals are incorporated into the mobile app product. Those analytics need to be reviewed and acted on, with each mobile app product to maximize the value and return of each application product. Mobile analytics are an essential part of the mobile app product's life cycle, providing data that can be used to improve user engagement, increase user retention and identify specific functions to enhance the overall user experience (see "Use Mobile App Analytics to Increase Engagement and Performance").

By failing to prioritize the gathering of user feedback and mobile analytics, organizations risk complete abandonment of the application by the users. Although, initial adoption may have looked good, if their feedback isn't taken into account or their problems using the application are not addressed, then users will eventually abandon the application. Furthermore, if a mobile app receives negative feedback, isn't being used extensively and isn't achieving its goals, the product management approach offers the ability to "fail fast." Product management principles, with a product owner focused on product marketing, will ensure that mobile app products are positioned for success through adoption, while reducing the risk of failure through abandonment.

Product management principles and proper product ownership practices apply to mobile apps for B2E, B2C and B2B, and include mobile apps of all sizes. Gartner is also seeing enterprises enabling citizen development, which is being completed without the direct involvement of IT. However, the IT organization should have visibility and ownership of the tools and processes being used to develop, secure and deploy those mobile apps. Once the mobile app reaches a level that's important enough to become part of the application portfolio, a more-defined product ownership approach that includes product management principles should be adopted.

Case Study

An enterprise decided it was time to build a mobile app that would help employees request and approve travel and expenses via their mobile devices. After going through Gartner's decision framework for prioritization and assessing the value that may be achieved by this mobile app, funding was approved, and development of the application proceeded. After a couple months of development, the MVP of the application was delivered. However, product management principles weren't followed, and, especially due to a lack of communication and marketing to the users, the application didn't even come close to achieving the value assessed. The problem wasn't the application itself — it was that the organization was so focused on development that they failed to treat the application as a product, ignoring the product management principles (specifically placement and promotion) that successful mobile app product development needs to follow.

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"How to Build a High-Performance Mobile Center of Excellence"

"Moving From Project to Products Requires a Product Manager"

"Delivering Winning Products and Portfolios With PLM in Manufacturing Primer for 2016"

"Moving From a Project-Based to a Product-Based Application Organization"

"Successful Mobile App Projects Need Empowered and Agile Product Owners"

"A Decision Framework for Mobile App Prioritization"

"Survey Analysis: How Enterprises Are Tackling Mobile App Development in 2016"

"Master Pervasive Integration With Product Management Thinking"

"Use Mobile App Analytics to Increase Engagement and Performance"

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